

ALLOHARYS VELAN

October 2, 2015

VIA CERTIFIED MAIL

National Freedom of Information Officer U.S. Environmental Protection Agency 1200 Pennsylvania Avenue, NW (2822T) Washington, DC 20460

Re: FOIA Request - 2009-2015 Volkswagen 2.0L TDI Diesel Vehicles

Dear Sir/Madam:

Pursuant to the Freedom of Information Act (FOIA), 5 U.S.C. § 552, I request access to and copies of the following documents:

- All reports, summaries, or presentations concerning the Notice of Violation issued by the EPA on September 18, 2015 to Volkswagen AG, Audi AG, and Volkswagen Group of America, Inc.
- All 2014-2015 communications with West Virginia University's (WVU) Center for Alternative Fuels, Engines & Emissions or the International Council on Clean Transportation (ICCT) concerning the results of the study that found significantly higher in-use emissions from a 2012 Volkswagen Jetta and 2013 Volkswagen Passat. See attached 9/18/2015 EPA Notice of Violation.
- All discussions and communications with Volkswagen Group of America concerning the increased emissions observed on their 2.0L diesel vehicles. See attached 9/18/2015 EPA Notice of Violation referencing such discussions and communications.
- All testing by the EPA performed to replicate the ICCT/WVU testing and identify the technical reasons for the high on-road emissions.
- All presentations, power point, or other documents used in the meeting between Volkswagen and EPA staff on December 2, 2014.
- All EPA or CARB testing concerning NOx levels or defeat devices on any 2009-2015 2.0L TDI Volkswagen vehicles.
- All confirmatory testing concerning the Volkswagen voluntary December 2014 recall of 2009-2014 model-year diesel fueled Volkswagen vehicles equipped with Gen1 and Gen2 technology.

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 All correspondences—including letters, faxes, and emails, and all corresponding enclosures and attachments—between EPA and Volkswagen relating to 2009-2015 2.0L TDI Volkswagen Vehicles.

- All presentations, PowerPoint, or other documents used in the meetings between Volkswagen and EPA in the summer and fall of 2015, including the September 3, 2015 meeting.
- All communications with CARB concerning NOx levels in 2009-2015 2.0L TDI Volkswagen Vehicles.
- All communications with the Volkswagen concerning NOx levels in 2009-2015 2.0L TDI Volkswagen Vehicles.
- All communications with the Audi concerning NOx levels or, defeat devices in Audi or Volkswagen vehicles.
- All communications with the any vehicle manufacturer concerning NOx levels or, defeat devices in passenger vehicles.
- All documents received from Volkswagen concerning NOx levels or defeat devices in 2009-2015
 2.0L TDI Volkswagen Vehicles.

I request that the agency search its emails and electronic files as part of its efforts to respond to this FOIA request. This request should not be interpreted as asking for the documents already publically available on the FOIAonline website

In the event the agency regards any of the requested documents as potentially exempt from disclosure under the FOIA, I request that the agency exercise its discretion to disclose the documents. If this FOIA request is denied in whole or part, I ask that you justify all deletions by reference to the specific exemptions of the FOIA. I also ask that you segregate and redact exempt materials to the extent possible to allow for release of all non-exempt portions of the requested documents.

Please produce all responsive records in electronic form (PDF) on a CD-ROM to the extent possible, with any remaining responsive records produced in paper form. I agree to pay any reasonable costs for this information. If I can provide any clarification that will help expedite your attention to my request, please contact me at (510) 350-9700. Credit card or other billing information can also be obtained by calling that number, and I ask that you notify me of any costs exceeding \$500 before you duplicate the records, so that I may decide which records I wish to be copy.

Pursuant to the FOIA, please provide a response to this FOIA request within twenty (20) working days from the date of your receipt of this letter. Thank you in advance for your prompt attention to this matter.

Thank you for your time and attention to this matter. I would welcome the opportunity to discuss this request and what we are looking for if you would like to call (510) 350-9712 or email (sal@classlawgroup.com) me.

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Very truly yours,

Steven Lopez

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Oakland, CA 94612



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

SEP 1 8 2015

OFFICE OF ENFORCEMENT AND COMPLIANCE ASSURANCE

VIA CERTIFIED MAIL RETURN RECEIPT REQUESTED

Volkswagen AG Audi AG Volkswagen Group of America, Inc. Thru:

David Geanacopoulos Executive Vice President Public Affairs and General Counsel Volkswagen Group of America, Inc. 2200 Ferdinand Porsche Drive Herndon, VA 20171

Stuart Johnson General Manager Engineering and Environmental Office Volkswagen Group of America, Inc. 3800 Hamlin Road Auburn Hills, MI 48326

Re: Notice of Violation

Dear Mr. Geanacopoulos and Mr. Johnson:

The United States Environmental Protection Agency (EPA) has investigated and continues to investigate Volkswagen AG, Audi AG, and Volkswagen Group of America (collectively, VW) for compliance with the Clean Air Act (CAA), 42 U.S.C. §§ 7401–7671q, and its implementing regulations. As detailed in this Notice of Violation (NOV), the EPA has determined that VW manufactured and installed defeat devices in certain model year 2009 through 2015 diesel light-duty vehicles equipped with 2.0 liter engines. These defeat devices bypass, defeat, or render inoperative elements of the vehicles' emission control system that exist to comply with CAA emission standards. Therefore, VW violated section 203(a)(3)(B) of the CAA, 42 U.S.C. § 7522(a)(3)(B). Additionally, the EPA has determined that, due to the existence of the defeat

devices in these vehicles, these vehicles do not conform in all material respects to the vehicle specifications described in the applications for the certificates of conformity that purportedly cover them. Therefore, VW also violated section 203(a)(1) of the CAA, 42 U.S.C. § 7522(a)(1), by selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing these vehicles, or for causing any of the foregoing acts.

Law Governing Alleged Violations

This NOV arises under Part A of Title II of the CAA, 42 U.S.C. §§ 7521–7554, and the regulations promulgated thereunder. In creating the CAA, Congress found, in part, that "the increasing use of motor vehicles . . . has resulted in mounting dangers to the public health and welfare." CAA § 101(a)(2), 42 U.S.C. § 7401(a)(2). Congress' purpose in creating the CAA, in part, was "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population," and "to initiate and accelerate a national research and development program to achieve the prevention and control of air pollution." CAA § 101(b)(1)–(2), 42 U.S.C. § 7401(b)(1)–(2). The CAA and the regulations promulgated thereunder aim to protect human health and the environment by reducing emissions of nitrogen oxides (NOx) and other pollutants from mobile sources of air pollution. Nitrogen oxides are a family of highly reactive gases that play a major role in the atmospheric reactions with volatile organic compounds (VOCs) that produce ozone (smog) on hot summer days. Breathing ozone can trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion. Breathing ozone can also worsen bronchitis, emphysema, and asthma. Children are at greatest risk of experiencing negative health impacts from exposure to ozone.

The EPA's allegations here concern light-duty motor vehicles for which 40 C.F.R. Part 86 sets emission standards and test procedures and section 203 of the CAA, 42 U.S.C. § 7522, sets compliance provisions. Light-duty vehicles must satisfy emission standards for certain air pollutants, including NOx. 40 C.F.R. § 86.1811-04. The EPA administers a certification program to ensure that every vehicle introduced into United States commerce satisfies applicable emission standards. Under this program, the EPA issues certificates of conformity (COCs), and thereby approves the introduction of vehicles into United States commerce.

To obtain a COC, a light-duty vehicle manufacturer must submit a COC application to the EPA for each test group of vehicles that it intends to enter into United States commerce. 40 C.F.R. § 86.1843-01. The COC application must include, among other things, a list of all auxiliary emission control devices (AECDs) installed on the vehicles. 40 C.F.R. § 86.1844-01(d)(11). An AECD is "any element of design which senses temperature, vehicle speed, engine RPM, transmission gear, manifold vacuum, or any other parameter for the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system." 40 C.F.R. § 86.1803-01. The COC application must also include "a justification for each AECD, the parameters they sense and control, a detailed justification of each AECD that results in a reduction in effectiveness of the emission control system, and [a] rationale for why it is not a defeat device." 40 C.F.R. § 86.1844-01(d)(11).

A defeat device is an AECD "that reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use, unless: (1) Such conditions are substantially included in the Federal emission test procedure; (2) The need for the AECD is justified in terms of protecting the vehicle against damage or accident; (3) The AECD does not go beyond the requirements of engine starting; or (4) The AECD applies only for emergency vehicles "40 C.F.R. § 86.1803-01.

Motor vehicles equipped with defeat devices, such as those at issue here, cannot be certified. EPA, Advisory Circular Number 24: Prohibition on use of Emission Control Defeat Device (Dec. 11, 1972); see also 40 C.F.R. §§ 86-1809-01, 86-1809-10, 86-1809-12. Electronic control systems which may receive inputs from multiple sensors and control multiple actuators that affect the emission control system's performance are AECDs. EPA, Advisory Circular Number 24-2: Prohibition of Emission Control Defeat Devices — Optional Objective Criteria (Dec. 6, 1978). "Such elements of design could be control system logic (i.e., computer software), and/or calibrations, and/or hardware items." Id.

"Vehicles are covered by a certificate of conformity only if they are in all material respects as described in the manufacturer's application for certification "40 C.F.R. § 86.1848-10(c)(6). Similarly, a COC issued by EPA, including those issued to VW, state expressly, "[t]his certificate covers only those new motor vehicles or vehicle engines which conform, in all material respects, to the design specifications" described in the application for that COC. See also 40 C.F.R. §§ 86.1844-01 (listing required content for COC applications), 86.1848-01(b) (authorizing the EPA to issue COCs on any terms that are necessary or appropriate to assure that new motor vehicles satisfy the requirements of the CAA and its regulations).

The CAA makes it a violation "for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter, and where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use." CAA § 203(a)(3)(B), 42 U.S.C. § 7522(a)(3)(B); 40 C.F.R. § 86.1854-12(a)(3)(ii). Additionally, manufacturers are prohibited from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing, any new motor vehicle unless that vehicle is covered by an EPA-issued COC. CAA § 203(a)(1), 42 U.S.C. § 7522(a)(1); 40 C.F.R. § 86.1854-12(a)(1). It is also a violation to cause any of the foregoing acts. CAA § 203(a), 42 U.S.C. § 7522(a); 40 C.F.R. § 86-1854-12(a).

Alleged Violations

Each VW vehicle identified by the table below has AECDs that were not described in the application for the COC that purportedly covers the vehicle. Specifically, VW manufactured and installed software in the electronic control module (ECM) of these vehicles that sensed when the vehicle was being tested for compliance with EPA emission standards. For ease of reference, the EPA is calling this the "switch." The "switch" senses whether the vehicle is being tested or not based on various inputs including the position of the steering wheel, vehicle speed, the duration of the engine's operation, and barometric pressure. These inputs precisely track the parameters of the federal test procedure used for emission testing for EPA certification purposes. During EPA

emission testing, the vehicles' ECM ran software which produced compliant emission results under an ECM calibration that VW referred to as the "dyno calibration" (referring to the equipment used in emissions testing, called a dynamometer). At all other times during normal vehicle operation, the "switch" was activated and the vehicle ECM software ran a separate "road calibration" which reduced the effectiveness of the emission control system (specifically the selective catalytic reduction or the lean NOx trap). As a result, emissions of NOx increased by a factor of 10 to 40 times above the EPA compliant levels, depending on the type of drive cycle (e.g., city, highway).

The California Air Resources Board (CARB) and the EPA were alerted to emissions problems with these vehicles in May 2014 when the West Virginia University's (WVU) Center for Alternative Fuels, Engines & Emissions published results of a study commissioned by the International Council on Clean Transportation that found significantly higher in-use emissions from two light duty diesel vehicles (a 2012 Jetta and a 2013 Passat). Over the course of the year following the publication of the WVU study, VW continued to assert to CARB and the EPA that the increased emissions from these vehicles could be attributed to various technical issues and unexpected in-use conditions. VW issued a voluntary recall in December 2014 to address the issue, CARB, in coordination with the EPA, conducted follow up testing of these vehicles both in the laboratory and during normal road operation to confirm the efficacy of the recall. When the testing showed only a limited benefit to the recall, CARB broadened the testing to pinpoint the exact technical nature of the vehicles' poor performance, and to investigate why the vehicles' onboard diagnostic system was not detecting the increased emissions. None of the potential technical issues suggested by VW explained the higher test results consistently confirmed during CARB's testing. It became clear that CARB and the EPA would not approve certificates of conformity for VW's 2016 model year diesel vehicles until VW could adequately explain the anomalous emissions and ensure the agencies that the 2016 model year vehicles would not have similar issues. Only then did VW admit it had designed and installed a defeat device in these vehicles in the form of a sophisticated software algorithm that detected when a vehicle was undergoing emissions testing.

VW knew or should have known that its "road calibration" and "switch" together bypass, defeat, or render inoperative elements of the vehicle design related to compliance with the CAA emission standards. This is apparent given the design of these defeat devices. As described above, the software was designed to track the parameters of the federal test procedure and cause emission control systems to underperform when the software determined that the vehicle was not undergoing the federal test procedure.

VW's "road calibration" and "switch" are AECDs¹ that were neither described nor justified in the applicable COC applications, and are illegal defeat devices. Therefore each vehicle identified by the table below does not conform in a material respect to the vehicle specifications described in the COC application. As such, VW violated section 203(a)(1) of the CAA, 42 U.S.C. § 7522(a)(1), each time it sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported (or caused any of the foregoing with respect to) one of the hundreds of thousands of new motor vehicles within these test groups. Additionally, VW

¹ There may be numerous engine maps associated with VW's "road calibration" that are AECDs, and that may also be defeat devices. For ease of description, the EPA is referring to these maps collectively as the "road calibration."

violated section 203(a)(3)(B) of the CAA, 42 U.S.C. § 7522(a)(3)(B), each time it manufactured and installed into these vehicles an ECM equipped with the "switch" and "road calibration."

The vehicles are identified by the table below. All vehicles are equipped with 2.0 liter diesel engines.

Model Year	EPA Test Group	Make and Model(s)
2009	9VWXV02.035N	VW Jetta, VW Jetta Sportwagen
2009	9VWXV02.0U5N	VW Jetta, VW Jetta Sportwagen
2010	AVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2011	BVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	CVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	CVWXV02.0U4S	VW Passat
2013	DVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2013	DVWXV02.0U4S	VW Passat
2014	EVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2014	EVWXV02.0U4S	VW Passat
2015	FVGAV02.0VAL	VW Beetle, VW Beetle Convertible, VW Golf, VW Golf Sportwagen, VW Jetta, VW Passat, Audi A3

Enforcement

The EPA's investigation into this matter is continuing. The above table represents specific violations that the EPA believes, at this point, are sufficiently supported by evidence to warrant the allegations in this NOV. The EPA may find additional violations as the investigation continues.

The EPA is authorized to refer this matter to the United States Department of Justice for initiation of appropriate enforcement action. Among other things, persons who violate section 203(a)(3)(B) of the CAA, 42 U.S.C. § 7522(a)(3)(B), are subject to a civil penalty of up to \$3,750 for each violation that occurred on or after January 13, 2009; CAA § 205(a), 42 U.S.C. § 7524(a); 40 C.F.R. § 19.4. In addition, any manufacturer who, on or after January 13, 2009, sold, offered for sale, introduced into commerce, delivered for introduction into commerce, imported, or caused any of the foregoing acts with respect to any new motor vehicle that was not covered by an EPA-issued COC is subject, among other things, to a civil penalty of up to \$37,500 for each violation. CAA § 205(a), 42 U.S.C. § 7524(a); 40 C.F.R. § 19.4. The EPA may seek, and district courts may order, equitable remedies to further address these alleged violations. CAA § 204(a), 42 U.S.C. § 7523(a).

^{[1] \$2,750} for violations occurring prior to January 13, 2009.

^{[2] \$32,500} for violations occurring prior to January 13, 2009.

The EPA is available to discuss this matter with you. Please contact Meeta Kaul, the EPA attorney assigned to this matter, to discuss this NOV, Ms. Kaul can be reached as follows:

Meetu Kaul U.S. EPA, Air Enforcement Division 1200 Pennsylvania Avenue, NW William Jefferson Clinton Federal Building Washington, DC 20460 (202) 564-5472 kaul.meetu-a epa.gov

Sincerely.

Phillip A. Brooks

Director

Air Enforcement Division Office of Civil Enforcement

Copy:

Todd Sax, California Air Resources Board Walter Benjamin Fisherow, United States Department of Justice Stuart Drake, Kirkland & Ellis LLP